

```
ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

ring/chain nodes:

24 25

ring/chain bonds:

6-24 6-25

ring bonds:

1-2 1-7 1-16 2-3 2-19 3-4 3-8 4-5 4-11 5-6 6-7 8-9 8-12 9-10 9-15 10-11 12-13 13-14 14-15 16-17 17-18 18-19 18-20 19-23 20-21 21-22 22-23

exact/norm bonds:

1-2 1-7 1-16 2-3 2-19 3-4 3-8 4-5 4-11 5-6 6-7 6-24 6-25 8-9 8-12 9-10 9-15 10-11 12-13 13-14 12-13 13-14 14-15 16-17 17-18 18-19 18-20 19-23 20-21 21-22 22-23
```

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:CLASS 25:CLASS